

ABSTRACT OF THE DISCLOSURE

A pattern width measuring apparatus for accurately measuring pattern width of a pattern formed on a wafer using an electron beam. The pattern width measuring apparatus includes: an electron gun for generating the electron beam; a deflector for scanning the pattern with the electron beam by deflecting the electron beam; a first secondary electron detector and a second secondary electron detector for detecting secondary electrons generated when the electron beam is irradiated on the pattern; a first edge detector for detecting position of a first edge of the pattern based on the quantity of the secondary electrons detected by the first secondary electron detector; a second edge detector for detecting position of a second edge of the pattern based on the quantity of the secondary electrons detected by the second secondary electron detector; and a pattern width computing section for computing pattern width of the pattern based on the position of the first edge and the position of the second edge detected by the first edge detector and the second edge detector.